20th Anniversary of the Reunification of Macao with the Motherland

This year marks the 20th anniversary of reunification of Macao with the Motherland. With the support of the central government, the Macao Special Administrative Region government and Macao compatriots have successfully put the scientific conception of "one country, two systems" and the principle of "Macao people governing Macao and high degree of autonomy" into practice, developing Macao's economy not only by serving as a window and a bridge to the outside world for mainland, but also by giving full play to its advantages as a world tourism and leisure center and an international regional economic and trade service platform, enriching and deepening the specific content of the theory and practice of the innovation of "one country, two systems".

On the occasion of the 20th anniversary of the successful implementation of "one country, two systems" in Macao, Macao will continue to maintain its development superiority and steady growth of the economy, uphold residents' life and work in peace and contentment as well as social stability, and actively cooperate with the country to implement the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area. Looking forward to Macao's continued vitality and a better life for its residents, it is believed that with the vigorous support of the central government, Macao will share the glory and prosperity of the Motherland by actively cooperating with the country to promote the construction of "the belt and road initiative" and sharing the responsibility and mission of national rejuvenation.

In order to celebrate this commemorative day, Macao Post and Telecommunications Bureau specially invited the famous designer, Wilson Chi Ian Lam, to design a set of philatelic products consisting of four stamps and one souvenir sheet. The old and new scenic spots of Macao, including the Golden Lotus Flower, the Hong Kong-Zhuhai-Macao Bridge, the Ruins of St. Paul's, the Our Lady of Penha Chapel and A-Ma Temple, are delineated on the stamps with bold and bright lines, showcasing Macao's prosperity and presenting characteristics of integration of Chinese and Western cultures, ancient and modern architecture and religious freedom in Macao.

In addition to the above-mentioned design elements, the souvenir sheet sketches a key innovation – a high-performance millimeter-wave electrical oscillator – developed by a research team at the University of Macau – State-Key Laboratory of Analog and Mixed-Signal VLSI. For the upcoming fifth-generation (5G) wireless communications, the millimeter-wave bands will be the key spectrum resource to allow ultra-high-speed data exchange. The oscillator is the core building block of any wireless receiver and transmitter front-ends. Specifically, the invented oscillator features a novel switched inductor to extend the frequency tuning range and improve the phase noise. The silicon chip, fabricated in 65-nm CMOS technology, exhibits a high Figure-of-Merit when compared with the state-of-the-art. The incorporation of the illustration of this innovative technology developed in Macao in philatelic product design, glorifies this stamp issue dedicated to celebrating the anniversary of Macao's return to the motherland.

Macao Post and Telecommunications Bureau Translation: NextVector Consultants Ltd.

Acknowledgment: Professor Dr. Rui Paulo da Silva Martins, Vice Rector (Global Affairs) of University of Macau, for authorizing the use of the image of high-performance millimeter-wave electrical oscillator and providing information.